THE VETERINARY RECORD

A Weekly Journal for the Profession.

Edited by WILLIAM HUNTING, F.R.C.V.S.

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THE EXAMINATIONS OF THE R.C.V.S.

There is no more legitimate subject for discussion than the tests by which the Royal College of Veterinary Surgeons decides whether a candidate is fit or not to practise. It is ten or twelve years since the present arrangements were made and every decade of time is accompanied by changes in science or scientific knowledge which perhaps require some modifications in our examinations. Various suggestions have recently been made by individuals for improving our tests of knowledge. Some would almost advise us to do away with examinations, apparently because they are not perfect. This is hypercritical, no one has ever said that an examination, even when consisting of an oral and a written part, is not faulty—it is however the best and fairest test known to man.

At present the candidate for the veterinary diploma has to pass a series of annual examinations extending over course of four years. The Council took a great deal of trouble in making this arrangement. There was a conference of Teachers, Examiners, and Councilmen at which the whole subject was carefully considered. The examinations had to follow the teaching, and a syllabus was drawn up as a guide to Teachers and Examiners so that both might grasp the extent and limits of the subject taught and examined. It was understood that the examiners should keep within the limits of the syllabus, but that a teacher might travel as widely or as deeply as he thought best for his students.

There was considerable difficulty in arranging the best order in which to take the subjects considered necessary to a professional education. It was desired not to overload any one session with too great an amount of work. The question was debated whether an examination every year was advisable, and a good deal of difference of opinion was elicited about Anatomy. It was said it could not be learned in one session, and why examine on it at all until the whole subject was taught? Not at all unanimous was the conference concerning Stable Management, which was ultimately placed in the second year. A rather strong case was made for including in one examination Pathology and Therapeutics with Medicine and Surgery. But ultimately the present arrangement was adopted by a large majority, and it should be borne in mind by would-be reformers that any alteration should come before another conference of all those best acquainted with the subject before concluding that any very sound reason for complaint exists.

The Charter of 1844 forbids teachers from acting as examiners.

We confess we do not see any very good reasons for altering the existing forms and methods—but discussion can only do good.

"THE CITY OF LIVERPOOL HANDBOOK."

Gentlemen who attended the Liverpool meeting will remember that Mr. Eaton Jones announced that 50 copies of "The City of Liverpool Handbook" were, through the courtesy of Dr. Hope, M.O.H., offered the members of the Association. Twelve were received and appropriated. The volume is a large one and deals thoroughly with the institutions and bodies connected with the Public Health of the town. It is profusely illustrated and is a valuable souvenir of the great seaport. Members desirous of having a copy may write to Mr. Arnold Richardson, 111 Arundel Avenue, Liverpool. Copies are limited, so early application is advisable.

ON THE TREATMENT OF WARTS IN CANINE PRACTICE.

It is well known that warts in the dog not uncommonly disappear without any treatment whatever being adopted. This fact should certainly make us cautious in accepting statements as to their removal by drugs, whether externally applied or administered per orem. Regarding the latter I have no experience, though I fail to understand how some of the internal medicaments supposed to be efficacious in the treatment of warts can possibly have any effect, and am inclined to think that when success has appeared to attend their use, the favourable results were mere coincidences. But I have used one agent externally in so many cases now that I am quite satisfied that it is reliable. My method—by no means a new one—consists simply in the repeated application of iodine.

Generally I use the official ointment of iodine, but sometimes the tincture which I often dilute with water. The ointment or pure tincture I apply once daily, the diluted tincture twice or sometimes even thrice daily. Whichever preparation is used the case should be watched, and should local irritation appear, the applications had better be discontinued till it has subsided, and then recommenced. Some dogs are much more sensitive to the local effects of iodine than others, and in these cases the diluted tincture should be used.

I have used iodine in this manner with uniform success in canine practice for some years, though I find that old dogs require a longer period of treatment than young ones. I believe the old-fashioned, and to my mind somewhat barbarous ligature, is the orthodox treatment nowadays—but I prefer iodine.

CANIS.

FRACTURE THROUGH THE ACETABULUM*

By Prof. A. GOFTON, M.R.C.V.S.

This specimen had been sent into the College in the early part of the year and its history was an interesting one. In 1896 the horse from which the bones had been taken, was said to have slipped or made a false step when going up hill in harness, and had at once fallen very lame. He was removed to the stable and placed under treatment, being allowed his liberty in a loose box. A period of six months elapsed before he had sufficiently recovered to return to work, but he had afterwards worked for over eight years, The horse was a little low in his hip after the accident, and though in the walk he showed what his owner described as "a slight stringhalt-like gait," he trotted quite sound.

The bone had been broken into four pieces, between which there had been in one or two places a bony union, but for the most part the union between the fragments had been fibrous only. The displacement had caused some enlargement of the cotyloid cavity, and apparently there had been some displacement of the head of the femur, for in the lower portion of the acetabulum there was a distinct depression which would just receive the head of the femur. At this part there were no remains of articular cartilage, and the compact bone which covers the articular surface had at one point been worn away, exposing the underlying more open, cancellated bone, the result apparently of friction between the two bony surfaces. Another point of interest about this specimen was a depression some two or three inches square on the gluteal surface of the ileum in a position corresponding to the sacro-iliac articulation. Here the bone was so thin as to be translucent, it had apparently from some cause been absorbed in a manner similar to that seen as a result of long-continued pressure by a tumour. The most interesting point about this case is the length of time the horse had worked after the injury. It seemed scarcely possible for a horse to have worked practically sound for so many years with his hip joint in that condition, but the history was beyond question.

A LONG DEFERRED BRAIN INJURY.

Subject.—Aged bay gelding.

On Saturday, at 9 a.m., this animal was led into our yard, a distance from his own stable of one mile. He moved very slowly and stopped every few yards. His respirations were somewhat accelerated; head carried low, fore feet wide apart, and slightly forward, something like a horse with laminitis.

When handled the neck was found to be stiff, and it was impossible to raise the head. The attempt to do this brought on violent spasm of all the muscles, and the patient made a curious groaning noise. Tail was tucked in between the legs.

He was given a dose of physic consisting of Aloes Barb. ʒv., calomel ʒi., and a stimulant.

During the day he ate fairly well and drank eagerly. No action of the bowels took place, and the abdomen became much distended.

An enema was given every four hours, and a dose of ammon. carb. and nux. vom. This was continued until Sunday evening.

About noon on Sunday it was noticed that the horse was unable to move at all, but stood propped against the side of the box. All the muscles of the body gradually became harder.

At 12 p.m. he fell down, and died very shortly.

Post-mortem.—On removing the head about a pint of blood-stained, very thin pus escaped from the spinal cord. The brain case contained also some two or three ounces of this fluid.

On the frontal bone was a deep pit which was caused two and half years ago by the horse running into a tree. This had apparently healed. He had worked well up to the day before he was brought for treatment.

A section was made through the centre of the depression, and it was found that there was a collection of pus surrounded by a bony tube, which led through the cribriform plate of the ethmoid bone and penetrated the brain case: all along this track the bone was diseased.

W. S. MULVEY, F.R.C.V.S.

AN ABDOMINAL WOUND—RECOVERY.

On the evening of July 5th I was called out to see a bay filly that had met with an accident while jumping a hedge half an hour previous to my arrival.

On examination I found she had been staked badly under the belly, and the skin and abdominal muscles were badly torn, the wound being about a foot in length, a large portion of the bowels were protruding from the external wound but not torn in any way.

The farmer wished the animal destroyed, but I asked him to give it a trial, although I knew it to be a serious case. Not having chloroform or ropes with me and it beginning to get dark I decided to do best I could without them, so I put a twitch on washed the wounds with weak solution of Jeyes' fluid, afterwards syringing well the wounds with a weak solution of perchloride of mercury 1 in 1000. I then put back the bowel, stitched the wound in the abdominal muscles with strong interrupted sutures taking a deep hold, then stitched the external wound, putting in altogether about 18 stitches, then covered with a mixture of iodoform and boracic acid. I put a large pad of tow against wound, afterwards putting a broad bandage right round the body. On top of bandage I rolled round a large blanket, stitching it on, I then cut a hole through the bandages to allow any discharge to escape.

Next day I dressed and syringed wound, and continued doing same twice a day for a fortnight.

* Shown at the meeting of the Scottish Metropolitan V.M.A. See p. 105.

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After the eighth day the bandages had been removed.

For ten days afterwards there was a large amount of swelling which gradually wore away. I did not take out stitches but allowed them to cut out. The wound discharged a good bit for about a week afterwards, then gradually dried up.

The filly never went off her appetite, and her temperature was never above 103°. She has made a splendid recovery.

A peculiar thing about this case is that the filly, never having been broken in nor handled in any way, stood with only a twitch on and never stirred an inch all the time I stitched and dressed the wounds.

I expected to see some enlargement after wound had healed up, but found nothing but a very slight scar.

SIDNEY E. ROBSON, M.R.C.V.S.

BYE-LAW 113 *VERSUS* QUACKS.

By HENRY GRAY, M.R.C.V.S., Kensington.

At a recent meeting of the Central Veterinary Medical Society, and in an issue of *The Veterinary Record*, Mr. G. H. Livesey, M.R.C.V.S., of Hove, very properly called the profession's attention to the free license quacks have to openly practise veterinary medicine and even surgery, advertising the fact, and, in some instances, going so far as contravening, in my humble opinion, the Veterinary Surgeons' Act of 1881.

I agree with that gentleman, and think the Council of the Royal College of Veterinary Surgeons should endeavour to suppress this poaching on our preserves, and if it has not power with the present instruments at its command, should consider whether it is advisable to try and get the Veterinary Surgeons' Act amended so as to limit the peregrinations of humbugs, rogues, and pretenders; nullifying the strict and in certain respects, the proper course the Council have adopted in framing the bye-law 113. The Council, by that bye-law, has made it incumbent upon the registered members of the profession to conduct themselves as professional men, and to be gentlemen, not only between members themselves, but also between members and the public. On the other hand it has tied the hands of the profession so far as its external enemies or unscrupulous competitors are concerned.

To some extent the profession is to blame because it has thought itself above itself, and that the general public would consider it at its own high estimation. It has spread the false idea that the public was intelligent enough to understand the inner workings of the veterinary surgeon's functions, and that it would be appreciated and sought after, if it only called "a spade a spade." In reality, we have tried to appear as scientific men, spreading notions, many of which have shifted like drifting sand, instead of being practical men and catering for the demands of the public's whims. We have therefore left grounds for the quack medicine vendors to poach upon, and they have not been slow to avail themselves of the opportunity, and fill the vacuum we have discarded.

Now the mischief is done I do not believe in being disheartened or pessimistic, nor do I think we should take a passive attitude. (By the way, two of our characters are "passiveness" and "pessimism"—both being fatal to upward progress). We should by all means take up the active attitude and attempt to get many of the evils now existing removed. We can only die in the attempt, while if we remain passive we shall certainly decay and in the process be finally destroyed by the voraciousness of our external parasites. Be this as it may, our attitude should be *altruistic*—for the public weal, and not *selfish*—for the profession. We should first show the public that we are desirous of protecting it against a few of its voracious parasites which are more hurtful to it than the vendor of "watered" milk or "coppered" peas. If a man sell adulterated milk or bread and is detected he is prosecuted and fined. On the contrary, if a man sell medicines with a brazen assurance to cure one of his ailments, or that of his animal, and it does positive harm, there is no law. The public health and that of animals should be protected by preventing a man selling drugs of wonderful properties to cure mysterious diseases, as by so doing the public would be protected against itself, thus saving their animals much torture.

In conclusion, our proper course is to show the public that we are desirous of protecting it against humbugs who obtain credit from it under false pretences. The profession cannot expect the public to give it protection for its own sake because it would open the door so that the profession could enter, and become, in its turn, one of the public's parasites.

ABSTRACTS FROM FOREIGN JOURNALS.

ROARING IN A DOG.

This rare affection in the dog is stated by Moeller to have been noticed only five times and is not even mentioned by Konhæuser. Abrecht in his long experience has only met with one case, in a St. Bernard, the dog was in good condition, but would roar badly if run for twenty-five yards; there seemed no constitutional disturbance, beyond a very little albumen in the urine. The dog was killed with chloroform and there was slight hyperæmia of the pituitary, but no obstruction to the penetration of air, the laryngeal mucus was affected with chronic catarrh, and the crico-arytenoid and arytenoid transversalis muscles were pale, much atrophied, but not enough to account for the intensity of the symptoms, there was marked atelectasy of the anterior lobe of the left lung, and the posterior lobe of the right was emphysematous. The author thinks the roaring was due to the state of the lungs which made inspiration painful.—*Rev. Gen.*

F. E. P.

DISEASES OF THE UDDER AND THE MILK SUPPLY.

By Professor METTAM.*

Milk and milk products enter so largely into the diet of man that a careful control of the production and distribution is a serious problem of public health. Not only is milk a very suitable pabulum for bacteria which gain access to it in its journey from the cow to the consumer, but it also may be contaminated whilst still in the udder by organisms which have produced lesions in the gland itself. The mammary gland may be attacked by tuberculosis, actinomycosis and botryomycosis as well as by the more general organisms of suppuration. Moreover there is a form of mastitis due to streptococcus which is contagious, and though in my own opinion this streptococcus is not pathogenic for man still the idea of drinking milk containing many streptococci is repellant. Other forms of mastitis are often of undetermined origin; though numerous varieties of bacteria may be demonstrated it is hard to say in some cases which is the causal germ.

But generally speaking we may in this short paper ignore acute mastitis, because the changes in the secretion and in the secreting gland are so notorious and so pronounced that no sane owner of dairy stock would think for a moment of adding what he may obtain from the gland to the general output. Then it is not our intention to discuss scarlet fever in the cow because no veterinarian of any experience believes of its existence for a moment, nor can we do more than refer to cow-pox and foot-and-mouth disease. It would be the height of foolishness for any dairyman to retail milk from a cow showing the lesions of the last mentioned disease upon the udder, and further the Diseases of Animals Act would protect the public from the milk being distributed from such a dairy. As to cow-pox the disease is far from common, and it would be dangerous in my opinion to permit the distribution of the milk because of the possibility of the milk being contaminated by lesions in the sinuses of the udder and the risk of infection by the alimentary canal of children of a tender age drinking the milk in a raw condition.

Fortunately the lesions upon the udder will cause a good deal of pain during the milking process, and this fact will draw the attention of the milker to the part, and doubtless in due course the veterinarian will be called in. The presence of variolous sores on the hands of the milkers would assist in diagnosis of the condition. The appearance of lesions in the form of brown scabs upon the teats and udder is worthy of closer attention on the part of the profession, and especially in view of the remarkable paper by Drs. Dean and Todd* From the lesions and from the milk an organism apparently in every respect agreeing with the Kleb's-Loffler organisms was isolated, and though diphtheria is unknown as a disease of bovines, still in my own opinion the possibility of the cow becoming infected and by a local lesion spreading the disease is not remote. In this case I am inclined to think that the local infection was of human origin, and that infection of the gland may be explained, as many diseases of the udder may be explained, as having occurred through inoculation of the milk remaining in the duct and the organisms passing up the column of milk into the sinus where they could readily proliferate. That the disease was possibly local and due to the milker from the filthy habit that is all to common of spitting into the hands before commencing the milking process was not lost sight of by the investigators.

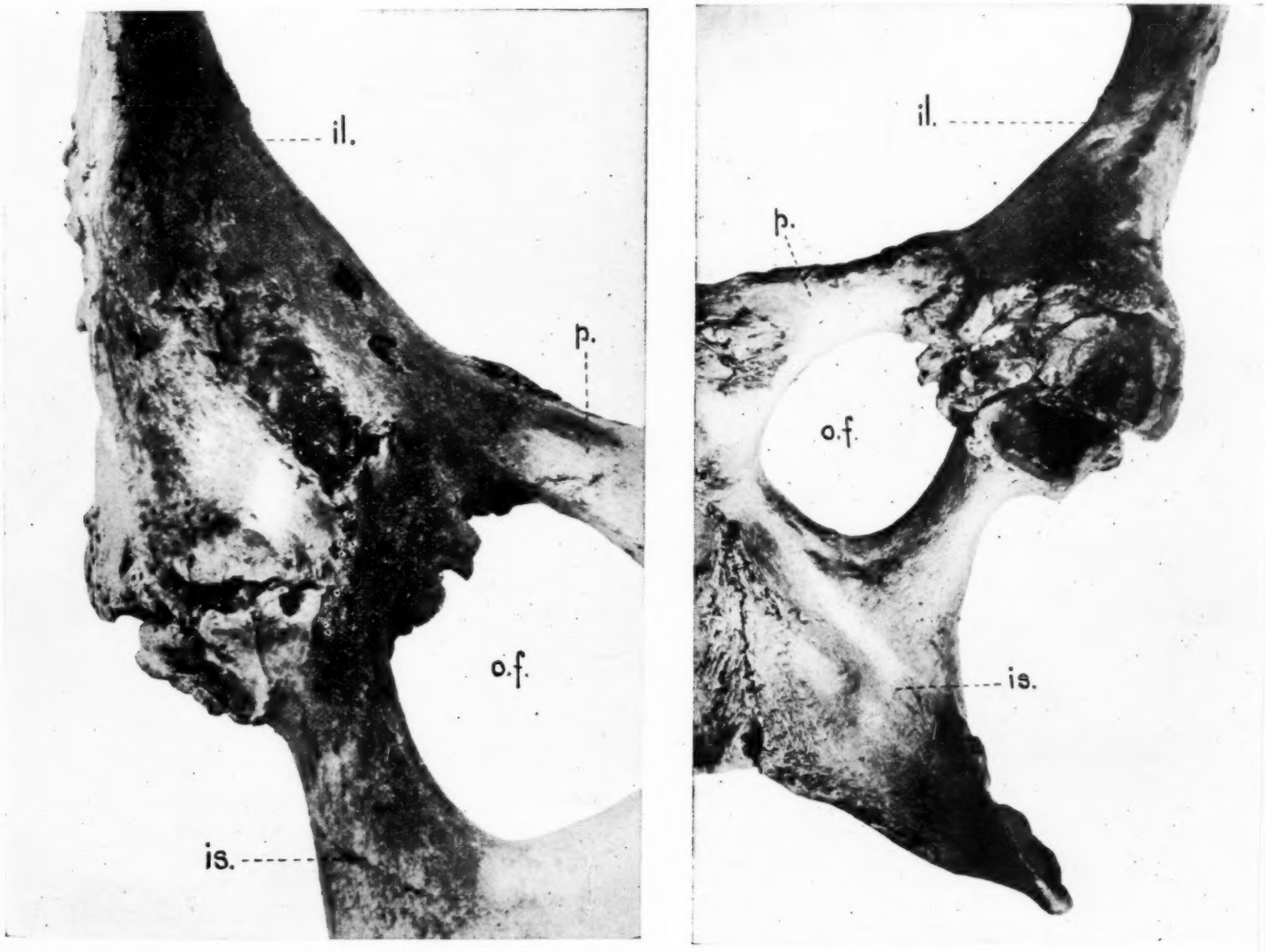
In endemics of disease traceable to the milk supply the possibility, indeed the great probability of contamination with virus from a human source may be lost sight of. The difficulties of tracing the source are apparent to all, and more especially when we remember that milk as it arrives at a depôt for distribution may have come from quite a number of contributors. Not only may the milk be contaminated when being extracted from the cow from the hands, clothing, and person generally of the milker, but also from the dust or dried manure upon the cow, and from the pail which may have been rinsed out with contaminated water. Further, during transference from farm to dairy, from dust, flies, and from other possible sources contamination may come, and if the weather and other circumstances, as delay in transit, are favourable the organisms that have gained access may proliferate enormously. It therefore requires close discrimination before one is justified in blaming the cow; and before condemning the source and origin of the milk every other avenue of possible contamination must be closed. Perhaps there would be less chance of the cow being blamed if owners of milch herds would take greater care in the hygiene of cows and give closer supervision to the milking process and adopt and carry out certain simple rules as to personal cleanliness applicable to the milkers themselves.

I am aware that the owner of the cows objects to extra expense, and a certain amount of expense would be entailed in grooming cows, providing overalls for the milkers, and better accomodation for the cows when in the house, but then the public demanding a better and uncontaminated article will be expected, and will, I am convinced, readily pay extra for the pure supply. Unfortunately, most of the milk to our large towns comes from a distance, and supervision is not possible in many instances, and hence, save in very exceptional cases, precautions are apt to be lax. Then the returns to the producer are not likely to be increased in proportion to the extra expenditure. The provider of milk is largely in the hands of the middleman who reaps the profit, and what with the cost of conveyance to the station, the railway charges and the middleman's profit the consumer is inclined to resent the extra charge that will follow retailing milk under the best hygienic conditions. I am aware that in England attempts have been made to deliver to the consumer a milk obtained and purveyed under the best possible conditions, but there is room for improvement and extension. Ireland, with its unsurpassed pastures and dairy cows, should be a dairy, the dairy of England, and the problem of placing Irish milk in the English markets in these days of cold storage and pasteurisation, of express trains and turbine steamers should not be impossible of solution.

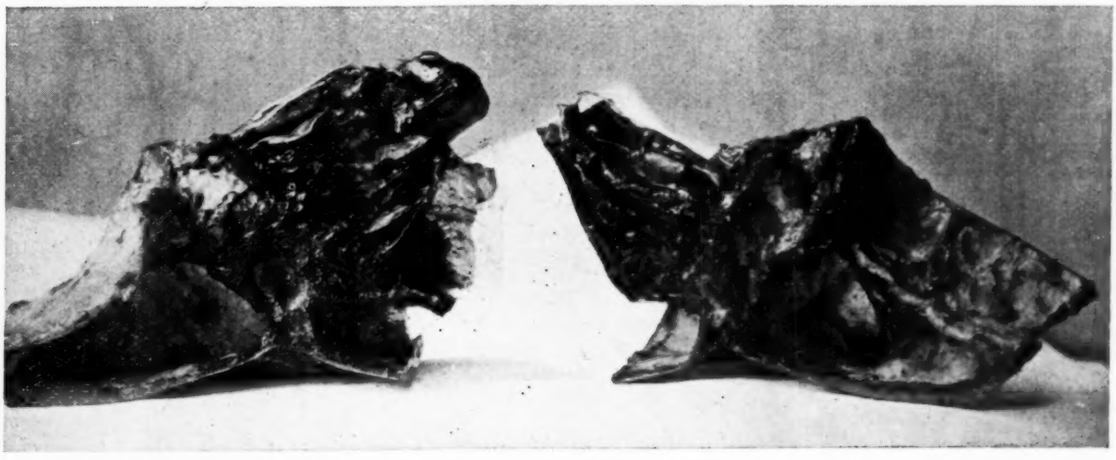
Tuberculosis of the udder is essentially a chronic lesion, confined in many cases to one quarter and that a hind one. The quarter slowly increases in size and in hardness owing to the abundance of new connective tissue produced. The secretion continues and for some time is plentiful and not much changed. There is no pain in the quarter and no blood in the milk. The animal may be in good condition generally though the organisms may be found without great difficulty. I do not think that tubercle bacilli are in the milk without a lesion of the mammary gland. It is difficult to say in many cases how infection of the gland has occurred. Sometimes undoubtedly by the blood stream, possibly in others by the lymph stream, the infection working backwards against the current. Moussu says that the mammary lymph glands show lesions of tuberculosis before the gland itself. At other times the virus has gained entrance by the duct and yet again by a wound.

* *Journal of Hygiene* Vol. 2, No. 2.

* At the Public Health Congress, Queen's College, Cork, Section V, Veterinary Hygiene.



FRACTURE THROUGH THE ACETABULUM. *To illustrate note by Prof. A. Gofton.*



A LONG DEFERRED BRAIN INJURY. *To illustrate note by Mr. W. S. Mulvey.*

It is more than probable that a tuberculous mastitis will follow if the udder is smeared as it may be with the infective discharge from a tuberculous womb. Injuries to the udder are common enough and some may be trivial, but no wound is too trivial for the tubercle bacillus, and no nidus is so suitable as the bovine system. Then, again, and this is a point very familiar to the veterinary surgeon practising in country districts, tuberculous lymphangitis of the skin in bovines is common. Tuberculous mastitis may arise then in quite a number of ways, and having been detected should the milk be proscribed? This opens up the question of the identity of human and bovine tubercle and in view of the present state of knowledge we are justified in assuming an agnostic position or in affirming the identity. Either position justifies us in condemning the use of milk from tuberculous udders.

Tuberculosis in children is common, and tubercle bacilli with all the virulence of bovine bacilli for experimental animals have been isolated (German Commission) and we are warranted in concluding that such children have been infected from a bovine source. Moreover, the question of infection goes beyond that of childhood, most children die if badly infected. Von Behring believes that many cases of pulmonary consumption in adults is of intestinal origin, infection having occurred primarily through the intestinal tract. From my own experience in calves I know that tuberculosis of the bronchial lymphatic glands without lung lesions may follow intestinal infection though no lesions may be found in the abdominal cavity. The fact has been demonstrated that tuberculosis of the pulmonary and mediastinal lymphatic glands may follow feeding upon infective material or direct implanting of the virus in the mesenteric lymph glands, and still lesions, save where the inoculation is made, may be wanting. (Vallée—*Annales de l'Institut Pasteur*, xix, 10, Oct., 1905.)

Calmette and Guérin found that lesions of the mesenteric lymph glands followed ingestion of milk from tuberculous glands, but that also lesions in the lungs developed. Vallée's experiment of injecting the culture into a mesenteric vein followed by tuberculosis of liver and with lesions of tuberculosis in the bronchial glands is very suggestive. The lungs were free from tubercle, but the glands both bronchial and mediastinal, were tuberculous, indicating doubtless a communication by the lymph stream through the diaphragm between the lymph vessels of thorax and abdomen. In Vallée's experiments, unlike those of Calmette and Guérin, the lesions in the mesenteric lymph glands were insignificant, and it is possible that in the young infection occurs by the blood stream of the intestine, thence to the liver and from the liver by the lymph route to the glands of the mediastinum and root of the lungs. In this manner lesions may arise in the young animal, occurring during intra-uterine life, resembling those which occur during development in the uterus. In my own cases in calves of a few weeks old lesions were found in the bronchial and mediastinal glands, the mesenteric glands, and the lungs showed no naked eye lesions of tubercle.

To the veterinarian early diagnois of tuberculosis of the udder is a matter of importance, and for that matter to all, because the veterinary surgeon is the only person whose training places him in the position of an expert whose opinion is final. In arriving at an opinion as to the condition of the udder four methods may be followed: (1) The application of tuberculin; (2) Manual examination of the udder and its glands; (3) Examination of the secretion by (*a*) microscopic examination after sedimentation and appropriate staining, (*b*) animal experimentation; (4) Harpooning the quarter and withdrawing a portion of the affected gland for examination.

1. Application of the tuberculin test will only give a general reaction, and the knowledge gained from the results following its use will only be of value if the clinical evidence (2) is beyond doubt. It is not possible to ascertain during life unequivocal evidence of any local reaction.

2. Physical examination of the udder and of its glands especially will greatly assist in arriving at a correct conclusion if the reaction to tuberculin is positive.

3. The microscopic examination of the deposit from milk after centrifugalising is not very satisfactory, especially as acid-fast bacteria indistinguishable from the tubercle bacilli, may be present. Injection of the deposit into guinea-pigs with the object of inducing lesions is unsatisfactory, because of the length of time that must elapse before the lesions become manifest. For this reason I have not included the use of laboratory media for isolation of the organism as the time occupied is too long and results are too uncertain. If, however, the suspected organisms are relatively abundant the isolation of the acid-fast bacteria may be attempted to ascertain if these develop within a few days, if they do then they are not tubercle bacilli, if there is no development the negative evidence may be taken as favouring the diagnosis of tubercle.

4. Harpooning the udder. Provided the owner of the animal is willing there is no difficulty in carrying out this simple operation. It goes without saying that an aseptic operation is desirable. The tissue removed may be examined histologically for the tubercle bacilli and the characteristics of tuberculous lesions. The presence of acid fast bacilli in the tissues, even if the anatomical elements are not clearly indicative of tuberculosis, is, in my opinion, sufficient for a positive diagnosis, inasmuch as the acid fast bacilli of milk probably gain access to the milk after it has left the cow. If the veterinarian himself will obtain the sample of milk for examination then greater weight may be placed upon the microscopic examination of the sediment.

It will be seen that to obtain a positive diagnosis in cases that are not clinically affected is not easy, but by a combination of methods this difficulty may be overcome, and the method is much simplified if an absolute opinion is not required at once. If I am not able to come to a decided opinion at once I inoculate a guinea-pig and advise the application of the tuberculin test. If there is no response to the test I conclude it is not tuberculosis. If there is reaction I advise boiling the milk and feeding to calves or pigs until I am able to say if the guinea-pig is tuberculous. If the guinea-pig is free from lesion after three weeks, I conclude that tubercle bacilli were absent from the milk.

Actinomycosis of the udder of the cow is not common, but cases are met with which closely resemble tuberculosis. In some cases the lesions are discrete nodules varying in size from a pea upwards, at other times the lesions are diffused, closely resembling tuberculosis. I am not aware if the organism has been found in the milk, but I have little doubt but that the milk coming from an infected gland should be condemned. There are many cases of human actinomycosis on record, and in most instances, in my opinion, the disease has obtained entrance to the body via the alimentary tract. Some cases there are of direct infection, others where the entrance of the streptothrix is not evident, but there are cases on record where the agent carrying the virus has been found implanted in the tissues on the course of the alimentary tract.

Botryomycosis of the udder is occasionally met with but probably more often in the mare than the cow. The disease is most likely to be of a chronic character with much new formation of connective tissue, which is burrowed with sinuses from which escape pus containing the characteristic granules. The lesions in the udder both of mare and cow are very similar in appearance.

Mammitis, due to the streptococcus of mammitis, has been recognised for some time in this country. Its

bacteriological diagnosis is easy, the numerous chains of streptococci, apparently in pure culture, are readily observed. One quarter alone may be affected, and this on examination shows a "knot" or a hard lesion in the quarter above the base of the teat. There may or may not be much pain on manipulation. The milk is altered in character, more watery and may contain flocculi, or in some cases be quite tenacious and slimy. The disease may at first be limited to one quarter, but later it extends to involve the other quarters by direct infection of these previously sound quarters. The infection produces a catarrhal inflammation of the membrane lining the sinuses and ducts and acini of the gland, with an increase of connective tissue and consequent sclerosis of the gland. Though doubtless much milk is consumed containing this streptococcus I am not in possession of any facts which prove the organism is pathogenic for man. One unconscious experiment of drinking milk containing streptococci of mammitis came under my notice. A cow that came into my possession for experimental purposes was milked on the day of her arrival and the milk was perfectly wholesome in appearance. This milk was consumed in the raw condition by two of my colleagues, by a female domestic, and four children. Next day the cow developed acute mammitis, followed by a cutaneous eruption which spread over the whole body of the cow. Streptococci in abundance were demonstrated in the secretion from the gland. Not one of those who drank the milk suffered any inconvenience whatever. I merely mention this not because I think the consumption of milk containing streptococci to be wholesome but because I have seen it mentioned that this streptococcus may give rise to intestinal disorders in children.

Staphylococci are often found in milk, and they are frequently those responsible for suppuration. They may come from an abscess in the gland, or more probably, as staphylococci are found as saprophytes of the skin, from the surface of the udder. They are not necessarily abundant unless the milk contains pus, and if it does diagnosis is not difficult, because the pus cells are readily found in the precipitate following centrifugalisation. It would be well in this connection to remember that numerous cells, leucocytes and epithelial cells may be present free in the perfectly normal acini of the gland, and that these cells may be swept away by the secretion and appears in the milk. There is not much difficulty, however, in recognising the pus cell as distinguished from the leucocyte, and the number is always an admirable guide. Numerous cells will indicate pus or a catarrhal condition of the gland, few cells have no pathological significance.

To conclude we may summarise as follows:—There is considerable room for improvement in the stabling of animals during the process of milking, and in the preparation of the animal prior to and for the extraction of the milk. The persons and habits of the milkers require careful supervision, and definite rules should be drawn up and strictly adhered to with reference to the health of the milkers, personal cleanliness, etc. The buckets and various utensils for reception of the milk should be thoroughly cleansed with boiling water, or if possible steam. Milk should be distributed as speedily as practicable, the temperature of the milk being kept as low as possible. Milch cows should be under the medical supervision of a veterinary surgeon acting for some central authority, and it should be incumbent upon the owner to notify to this officer any udder disease of his cows. Similarly the medical officer of health should be notified of any disease, no matter how apparently trivial, affecting those who milk the cows or who handle the milk after it leaves the cow.

SCOTTISH METROPOLITAN VETERINARY MEDICAL ASSOCIATION.

A quarterly meeting was held in the Royal (Dick) Veterinary College, Edinburgh, on the afternoon of Wednesday, 4th inst. Principal J. R. U. Dewar, President of the Association, in the chair. There was a good attendance.

The minutes of the previous meeting were submitted and approved.

Correspondence.

Mr. J. W. McIntosh, the hon. sec., read a letter from Sir John M'Fadyean thanking the Association for the letter of congratulation sent to him.

Also a circular letter from the National Veterinary Benevolent and Mutual Defence Society enclosing a copy of rules and of balance sheet, and asking that they be brought before the next meeting.

Also a circular letter from the Secretary of the Central V.M.S. enclosing copy of Major Butler's resolution and the discussion thereon.

In answer to a question, the Chairman explained that there was a Veterinary Benevolent Fund called the Victoria, with headquarters in London. It, however, did not undertake defence work.

Mr. McIntosh remarked with regard to Major Butler's resolution referred to in the communication from the Central Veterinary Medical Society, that the idea seemed good, but he asked whether they would get members to pay in the manner proposed. If they could ensure a guinea from each it would be all right. It was proposed to make the payment compulsory, but could they do that?

The Chairman: You would require an Act of Parliament.

Mr. Henderson asked whether the possibility of getting Government support had been exhausted. Had a decent effort been made to get it? The Irish had.

The Chairman: That is for a teaching institution. That is another matter.

The communication was allowed to lie on the table.

An apology for absence was submitted from Mr. Peddie, Dundee.

Mr. Connochie, Ayton, referred to the death of Mr. Borthwick, of Kirkliston, who was one of the pioneers of the Society and one of their grand old men. His son James was an active member of their Society, and it would be becoming if they sent a letter of sympathy and condolence.

This was agreed to, the members upstanding, and on the suggestion of the Chairman it was resolved to engross it in the minutes.

PRESIDENTIAL ADDRESS.

By Principal Dewar.

Gentlemen,—Before proceeding with a few somewhat unconnected remarks I wish to refer to our last meeting, and to the hopes expressed by several members that the consideration of current professional topics should be deferred until it was seen if there was sufficient time after any prepared paper was read and discussed. I cannot subscribe to these views. It seems to me that the main purpose of these meetings, and in fact of our Associations, is to bring the members of the profession together to discuss current topics, and the politics of the profession. I venture to think that the members in general will find that of nearly as much importance and certainly as interesting as listening to an erudite, abstruse paper on some subject which the majority of us have only a faint idea that we have heard of some time in the remote past. The politics of the profession ought to be of interest to all of us, and if they

are not I can only look on it as an indication that there is something wrong with the body corporate. There is certainly no lack of professional subjects to interest us, and many in which every member of the profession ought to take an interest. The proceedings of our Council, that body whom we elect individually, to guide, to protect, to watch over the interests of the profession, should be of interest to all of us, and the discussion of their proceedings may well have a salutary effect on the members themselves. It would be well therefore for this Association to consider carefully, before relegating questions of current professional interest to a second or third rate position where they may receive scant and inadequate discussion or escape attention altogether.

I thought of making a few remarks this afternoon about the professional outlook. It is a large subject, I wish to be brief, and time will not permit of its being gone into fully. Yet a glance at it may not do any harm.

In order to appreciate the present let us look back some distance on the past. Within my recollection the student could obtain his diploma and become a fully qualified practitioner in two short sessions, at least shorter than our sessions are now. In fact a session was not defined by the Council. The length of it was practically left to the authorities at our various Colleges, who had to prepare the students for examination. Then in 1873 the first step forward was taken, a summer session was inaugurated, and botany had to be taught and examined on. Then a few years later another winter session was added, but up to 1892 the third winter session could consist of but two terms, while the first and second were of three terms each, while the length of a term was not defined.

After 1892 our Council demanded a course of study of four complete sessions, while a session was defined as consisting of thirty weeks, while zoology, stable management, and horse shoeing, hygiene and dietetics, and meat inspection were added to the curriculum. As yet there is nothing to indicate a further extension, but the inauguration of what has been termed post-graduate classes is a plain indication that the education given in the four years course is the barest minimum. And now our Council—your Council—has gone a step further. Besides fixing the length of the session it has now prescribed the number of lectures and the number of hours practical instruction that has to be given in each subject during the session, I am not finding fault with this. There may have been causes for it that I am not aware of, and although it is still open to any teacher to give more teaching than the amount stated in our bye-laws, he is not at liberty to give any less.

And during all these years what about the general education? In 1873, when the first extension beyond the two sessions was started, the preliminary examination was little more than a form. Almost any lad who could be trusted to go out to buy a few groceries for his mother could pass it. And now, while other professions have been raising their educational tests, that of the veterinary profession has been raised much faster until it has overhauled and is now on a level with that of the medical profession.

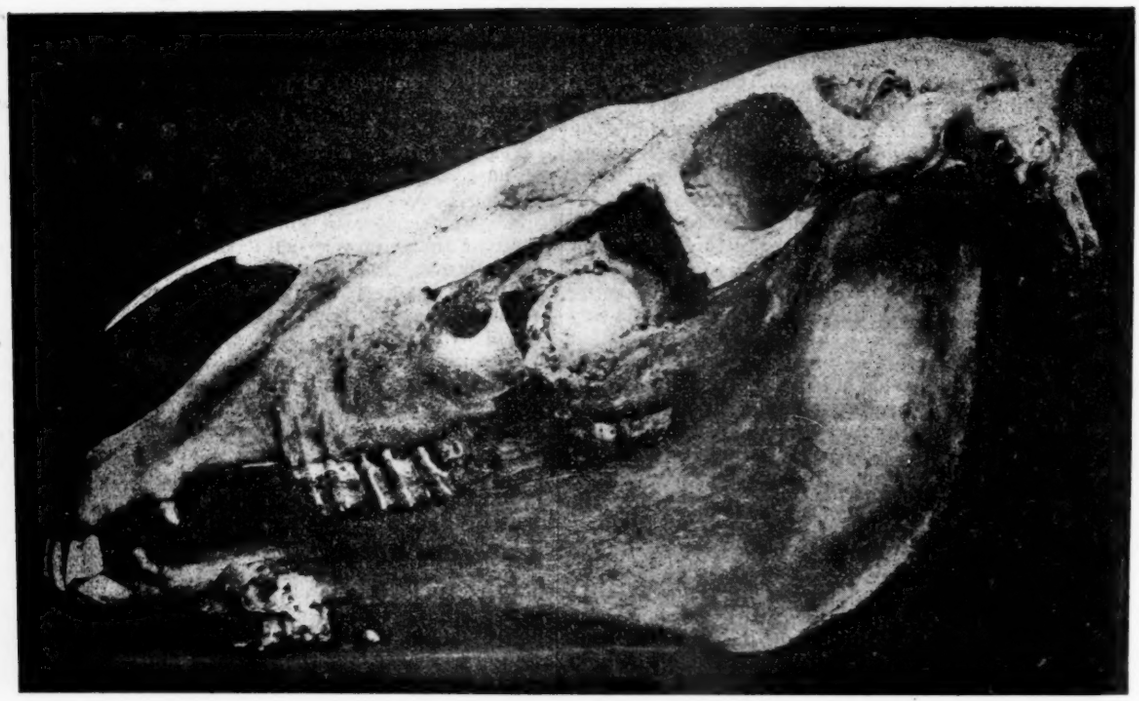
Now what effect have these changes had on the rank and file of the profession? I venture to assert that their effect has been entirely beneficial. The changes that have taken place are certainly not all due to the improved education, either general or professional. Many of them are due to the scientific progress and general advancement that is taking place in the world around us. Five and twenty years ago the veterinary surgeon, if he was sometimes more fully employed, had more work to do for less remuneration, and more attention was expected from him. If called at night to a colic case he was expected to wait and see it through. He had himself to do his own rough work, to be his own labourer. Now this is seldom expected of him, or if it is it is in great part his own fault. There is no doubt but the higher education, the better scientific training, gives a man more self confidence, a better position, and a right to demand more attention in return for the attention he is giving. The world is very apt to take a man at his own estimate, and if he shows that he has little respect for himself, he need not be surprised if those he is moving amongst should homologate his judgment.

Undoubtedly in many of our country districts the recession of large tracts of land to its natural condition, in some cases the conversion of sheep runs into deer forests, and the diminution of arable farming is an evil omen for the veterinary surgeon. While the advances and improvements in mechanical traction, the general use of mechanical motors is displacing considerable numbers of horses. But we know that on the introduction of steam and the building of railways it was prophesied that horses would soon be at a discount, and would only be retained for pleasure and sport. How different has the reality been! With the increase of trade more horses than ever were required. So I venture to believe that the horse industry will still thrive, and that horses will not be less required than before.

Why, what do we see at the present time? Notwithstanding the many thousands of motor cars that are now in the country and the millions of money invested in the industry, instead of horses being a drug in the market we see them to-day as dear, as valuable, and as difficult to get as ever they were. If any of you happen to know of a few good cheap horses I shall be very pleased to learn where they are to be had.

And as regards other live stock, no man has ever seen a sale of cattle like that which took place at Perth this spring. Some 250 young bulls, the majority of them not one year old, selling at an average of over £80 per head. And it is a long time since sheep were seen selling better, or even so well as they have been these last twelve months. Wool is dearer, much dearer, and mutton is a good price. As long as our breeders are able to maintain the quality of our studs and herds and flocks, as long as our country remains the fountain head of the world for pure bred stock, the centre to which every country turns when it wishes to improve its domestic animals, there will always be employment for the practical, up-to-date, scientifically trained veterinary surgeon.

It may be said—it will be said, I have little doubt, that the veterinary surgeon is seldom called to an ailing sheep. There is too much truth in that. But one reason for it is that the diseases of sheep, the individual animal not, as a rule, being of much value, have not received the same amount of study and attention that those of the horse or ox have. It requires more than one sheep to be ill, or more than one death to cause the veterinary surgeon to be called in. Hence the reason for this comparative neglect. We have seen lately some animadversions in a report recently published by a Departmental Committee, on the way the diseases of sheep have been neglected. But before engaging in scientific research, generally unremunerative, the veterinary surgeon has to look to his bread and butter—to the means of obtaining a livelihood. In this connection we have a very strong claim on the Government, in fact I am prepared to charge the Government with neglect of one of the first duties it owes to the country, of failing to do its part in protecting or at least fostering the first industry of every country—that of Agriculture. And one Government is not any better than another, Liberal or Conservative, Radical or Unionist, all alike treat the subject of veterinary education with supreme neglect. Thr Government uses the profession to stamp out and to prevent contagious diseases, while it does nothing towards its education, towards its preparation for the



work required of it, and the credit for any good that is done goes mostly to the lay members of the Board of Agriculture.

It seems scarcely credible that this country, our own country, the centre, the breeding ground of the best and most valuable live stock known, should be practically the only country in the world which does nothing for veterinary education. In every European country, as far as I know, the Veterinary Colleges are National Colleges, are State institutions, supported and governed by the various States. In the U.S., in our principal Colonies, even in India, veterinary education is nursed and fostered by the Government. Yet, up to a few years ago the British Government had done nothing. Then Ireland –which sends Members to Parliament who are very good at looking after her interests —obtained a grant for building purposes to enable her to start a Veterinary College, and now the London Veterinary College has been promised an annual grant to meet current expenses. I am very pleased to know it, and hope it may soon be increased. But surely Scotland is not to be forgotten. She also deserves some consideration, some assistance, and I earnestly hope she may get it. There is no doubt but with more financial support, with better appliances, with more practical and experimental work the veterinary student could be better fitted to take his place in the world, to fight against those animal plagues which occasionally decimate our studs and herds and flock, and even to improve the status of his profession.

We have seen many changes, many attempts made, to improve the educational curriculum, and our Council might now do worse than devote some time, some thought towards improving the methods of examining the veterinary student. Except for those due to the additions to the curriculum, the professional examination has not undergone much change since the days of the two sessions. It is receiving some searching criticism at the present time, and if not yet in our profession still in many cases the methods of examination are being overhauled.

We see some writers asserting that all examinations are bad, and that they ought to be abolished. I think few of us will go that length, and if we consider them an evil, still we consider them a a necessary evil. But undoubtedly the method of examination that is constantly stopping good and efficent students, while occassionally a weak and immature one may be passed, has certainly some reason to show cause for its continued existence. One change that has been suggested as an improvement is the substitution of one of the examiners —both at present outside examiners—by an internal examiner in the person of the teacher of student. There is no doubt but the teacher, unless there is something very far wrong, knows better what knowledge the student possesses than any outside examiner is able to ascertain in the short time he has the student under examination.

On the other hand it is affirmed that a teacher is not to be trusted to examine his own students, that no teacher can be expected to admit that a large percentage of his students are unfit and ought not to be passed. Also that there is sure to be favouritism exercised. There may be some truth in all this. Human nature cannot be eliminated, and were such a system instituted there is no doubt but the external examiner ought to be selected with the greatest care. He would require to be thoroughly familiar with his subject, possessed of sufficient confidence to enable him to back his own opinion, yet not too dogmatic and overbearing.

But apart from the examiners we have been discussing there is another authority that I have great faith in and that is the "Class Record." It gives evidence that cannot be ignored. It shows the position that a student has gained for himself by his attendance, by his work, by the manner in which he has acquitted himself in the class examinations, and it has been assigned to him by his teacher in the quiet of his own room, when the professional exam. was far away and the passing of it not in question. This "Record" is finished before the examination comes on, and its evidence in many respects is clear and unequivocal. If there is any doubt in the mind of an examiner about a student passing, that student's Class Record ought to decide it. In fact I might put it stronger than this, but refrain.

In making these few remarks on our examinations, my purpose has been to make you think—to get you to consider the subject for yourselves, as it is of the greatest importance to the profession. I am not so sanguine as to think that mistakes can altogether be eliminated, but our aim ought to be to make them as few and unimportant as possible.

Before sitting down I wish to say that I cannot take a pessimistic view of the future of our profession, I hope the time is close at hand when our teaching institutions will receive financial assistance from Government, and that will do more to bring public appointments to us than anything we can do for ourselves. Depend upon it if the public is paying in any degree for the education of the veterinary surgeon, it will take more interest in him, it will be anxious to have its *quid pro quo*, to have value for its money. I have every confidence that the time is rapidly coming when our profession will be accorded a better position both scientifically and socially than ever it has obtained in the past. (Applause.)

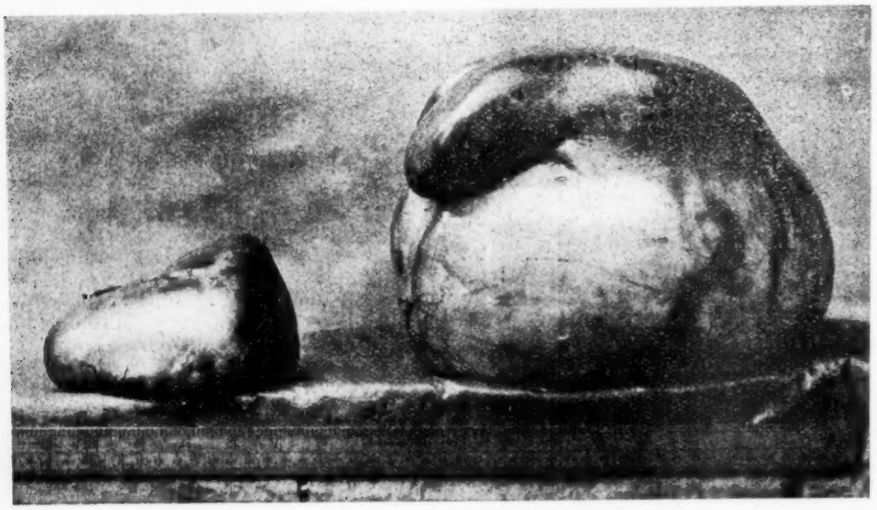
Specimens.

Prof. Gofton brought forward several morbid specimens. The first of these was the innominate bones of a carriage horse which had suffered from a fracture through the acetabulum. [See p. 98].

The kidneys of a draught horse, one of which had been the seat of a small round-celled sarcoma, were next shown. In this case the horse had died from pneumonia and the condition of the kidney was only accidentally discovered on post-mortem. The weight of the healthy kidney was 2lb 4oz, that of the pathological one 22lb 3oz. Whilst under treatment the horse had shown no symptoms indicative of disease of the kidneys and his owner stated that he had never had any reason to suspect that his horse's kidneys were otherwise than normal.

The next specimen was the skull of a light draught gelding, showing in the maxillary sinus an odontoma which had been attached to the roots of the fourth upper molar tooth. The subject in this case was said to have been much troubled with his teeth for over two years and when sent in to the College he showed a considerable enlargement of the facial bones over the roots of the fourth upper molar tooth on the left side, mastication was evidently painful and only imperfectly performed and there was a profuse, very fœtid discharge from the left nostril. After casting and chloroforming the horse, the offending tooth was with some difficulty punched out, and though the presence of the growth at the root of the tooth was evident, it could not be dislodged. The case had an unfortunate termination, the patient dying from traumatic pneumonia a week after the operation. After cleaning the skull, a portion of the facial bones was removed exposing the growth. As the growth had developed it had caused a good deal of displacement of the neighbouring teeth, with the result that the first upper molar tooth was more than half-an-inch nearer the corresponding corner incisor than its fellow of the opposite side. The inflammatory changes in the alveolus had led to a good deal of new bone formation, the new bone completely filling the lower portion of the maxillary sinus and commencing to encroach on the

nasal cavity. A second small tumour of a similar character and about the size of a horse bean was found in a small depression at the bottom of the alveolus; it is seen in the accompanying photograph as a small pea-like body lying near the extracted tooth.



THE USE AND ABUSE OF ANTISEPTICS IN SURGERY.

By Mr. J. W. McIntosh.

Mr. Chairman and Gentlemen,—I feel that I owe an apology to this meeting for the imperfect manner in which my subject to-day is dealt with. I may urge in extenuation that the calls upon my time have prevented me from devoting as much time to the preparation of my contribution as the nature of the subject deserves. However, I have the satisfaction of knowing that there are many here to-day desirous of taking part in the discussion that my deficiences will be more than made good.

The closing half of the last century must always remain a land mark in the intellectual progress of veterinary science. Views which were but lately universally held have been completely and for all time swept away, and discoveries have been made which have fundamentally altered our conceptions and enabled us to establish new principles, and to elaborate new methods of procedure. These results have been mainly due to the work of Pasteur and Lister—work which must last as long as the discovery of the circulation by Harvey, or the principle of the steam engine by Watt.

Before this time the surgeon was met at every turn by blood poisoning, and this complication was so certain to attack even small wounds that there were many operations which, warned by bitter experience, no one ventured to perform.

The new starting point consisted in the discovery by Pasteur that many diseases in the vegetable and animal kingdoms are due to the action of minute organisms—to bacteria. The next step was the application of Pasteur's discovery to surgery by Lister, who commenced investigations into the use of substances by which these harmful micro-organisms, these bacteria might be excluded and destroyed. He found that when he used carbolic acid in a case in which he had opened a large abscess the behaviour of the wound and the subsequent progress of the patient were absolutely different from what had hitherto been observed. Can we not all understand Lister's astonishment and the delight with which these results were contemplated.

Of course, he was at first regarded as a visionary; some even thought him scarcely honest, so great was the difficulty of believing what he declared his experience to have been. Those who pinned their faith on established authority, and whose minds had passed the plastic stage, would have none of it. Men, however, who were younger and whose minds were receptive and untrammelled by stereotyped impressions, hailed Lister's announcement with enthusiasm and at once set to work to enlarge his observations and improve upon his first attempts. But his glory must always be that he set this great stone rolling.

When progress is active in any department of life we are always apt to think that we have reached a standpoint which puts our forefathers very much in the shade. We regard them as worthy, and having acted up to their knowledge, but we are prone to believe that we possess higher attainments than they did, that now the meridian is above us, and that we should mightily astonish them if they could now return to the scene of their former labours and see us at work. Yes, I believe we should astonish them, but I for one should be sorry to be the performer before many of them.

The question for us to-day is this. What are the results of our own practical observations with regard to the use of antiseptics. Our success must be ever in direct proportion to our capacity, first for obtaining sterility of the inside and outside of the wounds we have to make, and second, of preventing the entrance of micro-organisms. Have we then obtained a system capable of absolutely excluding our microscopic enemies.

I am very much afraid in spite of all the precautions there is no doubt bacteria do enter wounds, but being saprophytes they are not always injurious. It will depend largely on the kind and the virulence of the bacteria which enter—thus streptococci are much more likely to take root than are staphylococci—but once bacteria gain entrance to a wound the question of the result does not lie wholly with the bacteria, the body itself opposes a strong resistance to their growth. Healthy recently clotted blood is not at all a favourable nidus for growth. The tissues themselves have, as you all know, a very strong opposing power to the growth of bacteria, and unless these are sufficiently virulent and numerous they quickly die out. All the same it is better to prevent the organisms entering a wound than to trust to their doing so in small numbers and finding the tissues sufficiently resisting.

Paths of Infection.

Before planning a method of aseptic treatment the surgeon has to consider what are the paths by which pathogenic bacteria may gain access to a wound.

Wounds may become infected in three principle ways:—

(1) The first in importance is infection from the skin. The skin collects and retains not only organisms that are usually found in connection with it, but dust and

dirt which is so intimately ground into the epidermis that its complete removal is a matter of difficulty.

(2) The next path of infection is by way of objects that come into contact with the wound at some time during the operation, such as the hands of the operator, the instruments, the sponges, sutures, ligatures, etc.

(3) Infection may reach a wound from the air. By exposing culture media it has been found that air is rich in organisms, some of which find their way into the wound during the course of an operation. It is true that the great majority of them are non-pathogenic, but we have no assurance that they always are, and it is only reasonable to suppose that the dust of a stable or byre must contain a relatively high proportion of pathogenic bacteria.

Disinfection.

We sometimes see some little confusion between the terms aseptic and antiseptic. The term aseptic treatment includes all those precautions, taken to prevent the access of pathogenic bacteria to wounds. In other words the term embraces all the measures adopted to keep the wound aseptic, or free from septic organisms.

The term antiseptic, on the other hand, should be reserved for those measures designed to combat sepsis either already present in a wound, or to which it may be exposed. Of late years many surgeons has been attempting to eliminate the irritating properties of chemical antiseptic by the adoption of what is called aseptic surgery. For the sake of simplicity it will suffic to-day if I deal with them as practically speaking the same.

There are two means by which these organisms can be destroyed, namely heat and chemicals, and a few words may be devoted to the relative advantages of the two.

Sterilisation by means of heat is the most certain of all methods and it may be carried out in one of three ways. It may be by moist heat (or boiling), by superheated steam or by dry hot air.

Sterilisation by boiling is the simplest plan of all, and is quite reliable provided that the articles are boiled for a sufficient time. All instruments boiled for twenty minutes to half an hour in water containing a teaspoonful to the pint of common washing soda, may be regarded as absolutely sterile however virulently they may have been infected previously. A shorter period might suffice, but spore-bearing organisms require prolonged boiling for their complete destruction, and half an hour should be allowed to make sure.

The length of time required for the complete sterilisation of an instrument by heat constitutes the weak point in this method. Its drawback is that sharp instruments such as knives, needles, scissors, etc., are sometimes ruined by the process.

This brings us to the question of Chemical Antiseptics which are so extensively used in general practice. It is about the merits of these that I wish particularly to elicit fuller information.

Some veterinary surgeons use them very largely when operating, others very little, while still a few go to the opposite extreme and deny them any virtue at all. Antiseptics in the strength in which they would be almost immediately deadly to all organisms are inadmissible because of the injury they would produce on the tissues. In the strength ordinarily used the chief antiseptics—Carbolic acid, Corrosive sublimate, Bichloride of mercury, Formalin, Lysol, Chinosol, and others, admittedly take some time to exert their effects, and that is a disadvantage. Moreover, while they act fairly rapidly against the majority of bacteria, they have comparatively little effect upon the spore-bearing organisms. Luckily, however, most of these latter are non-pathogenic, and this is not really an argument against the use of chemical antiseptics.

The chief argument brought against them is that besides being lacking in bactericidal power, they damage the vitality of the tissues when introduced into a wound, and thus may be an actual source of harm, for they may prevent the tissues from dealing with any organism that they may gained access, while failing to inhibit the growth of the organisms themselves. This is a serious indictment, and if proved would suffice to condemn the use of antiseptics during an operation. Every one will admit that to pour strong antiseptics into a wound must undoubtely damage the tissues, but experience has shown that no bad results follow their use if properly diluted, and I think we are all agreed that when judiciously used they do exert an inhibitive influence on the development of bacteria.

It is very essential that the antiseptic shall have free access to the organisms. If they are embedded in the tissue the antiseptic can only penetrate after a considerable time, similarly if the organisms are in a mass instead of more or less singly. Again, if they are in a strongly albuminous fluid, many antiseptics, notably Carbolic acid and Bichloride of mercury, precipitate the albumen, and thus the organisms become covered with an albuminous layer, which markedly retards the action of the antiseptic, and thus, instead of killing them in a few minutes several hours may be necessary. Similarly if there is much oil present, their action is much slower, and in the case of Corrosive sublimate especially may be quite ineffectual.

The search for the ideal chemical antiseptic and disinfectant is arduous as the quest of the "Holy Grail." It is easy to find a chemical which in weak and harmless solutions acts as an antiseptic, but it is quite another matter to find a chemical disinfectant. The task would be easier if our knowledge of the action of chemicals upon bacteria was more scientific. It is useless to beg the question by saying the bacteria are poisoned. I confess a deep ignorance as to how a chemical kills bacteria It may, and probably does, enter into chemical combination with the micro-protein, but this cannot be the whole truth, because the quantity of the chemical varies according to the species of bacterium, and not according to quantity. Some species of micrococci are more quickly killed by a given quantity of sublimate than others, and even the age and vigour of the growth may make a difference. The truth is that different kinds of infection have to be fought with different kinds of chemicals and attacked in different ways. Experience has a great part to play in the choice, and doubtless we have much to learn.

It is perhaps not so much the particular method we employ as the care and thoroughness with which the particular method is carried out. Whichever course is adopted it should not be forgotten that other well recognised details should be scrupulously attended to, their importance can hardly be exaggerated. Clean cut wounds should be made, bruising of tissues should be carefully avoided, minute hæmostasis should be secured by drainage and by pressure, or by both, the wound cavity should be kept emptied of all fluids, and the part should be as far as possible immobilised. These points are sometimes forgotten in the cloud of details imposed by modern surgery.

Mr. Henderson said Mr. McIntosh had travelled along familiar lines and there was not much exception to be taken to his remarks. He might say that the effect of boiling the various chemicals had been very carefully investigated and there was a great deal of information in the technical books on it. On thing that had always struck him in connection with that matter was the possibility of getting antiseptics, which they might call non-poisonous. He did not think that had ever been properly worked out. Take the antiseptics which were

taken from wood. The resins could be used to advantage more than they were. Turpentine for instance was known to have a wider field of usefulness than it was credited with, and that particularly applied he thought to internal antisepsis. He thought they needed investigation to ascertain the effect of these non-poisonous antiseptics.

Mr. THOMSON said he remembered that while a student he was much impressed by a remark of Principal Dewar. It was "Temper the lotion to the condition of the wound." He thought that was a great thing to bear in mind.

Mr. HENDERSON suggested that in future they should appoint a critic beforehand to criticise the papers read. He might add to what he had already said that there were a good many microbes which sporulated that were dangerous. Of course the most notorious of these was anthrax. In the recent report of the Government Commission on Braxy and Louping-ill there was shown the existence of a series of diseases in sheep which invariably sporulated, It was a most interesting document. But as a general rule, as Mr. McIntosh had said, most of the microbes do not sporulate. He thought it was doubtful whether the staphylococci did not take as rapid effect as streptococci. The latter were the more virulent.

Mr. AITKEN asked if anything had been done about the rules of the Society.

The President said that as was stated at the beginning of the meeting nothing had yet been done. The Committee to whom the matter was remitted had not, for various reasons, been able to meet. He would like if their meetings were better attended and he suggested that the Secretary might be instructed to advertise the meetings in *The Record* at least twice before they were held.

Mr. AITKEN said that if the members did not attend the meetings it was not because they did not know that they were being held. They needed to go and arm them along. (Laughter.)

The President's suggestion was then agreed to.

On the motion of Mr. Henderson, a vote of thanks was accorded to the President for his address and for presiding, and the Secretary and Professor Gofton were also thanked for their papers.

The SECRETARY read a letter from Mr. Cameron, Berwick-on-Tweed, apologising for absence and expressing the hope that individually and collectively they would be able to lend a helping hand to every movement that was likely to benefit their profession.

The SECRETARY drew attention to the difficulty of arranging papers to be read, and hoped the members would lend what assistance they could in that direction.

ROYAL COUNTIES'
VETERINARY MEDICAL ASSOCIATION.

A general meeting was held at Oxford on Friday, August 3rd, and preceded, on the kind and hospitable invitation of Mr. R. J. Verney, Oxford; Mr. H. C. Jagger, Bicester; and Mr. E. P. Owen, Thame, by a luncheon at the Clarendon Hotel. Mr. Verney presided, Mr. Jagger (late President) facing him in the vice-chair. The other members present were Mr. H. G. Simpson, of Windsor, President; Messrs. T. W. Lepper, J. F. Simpson, W. Hunting, J. Alex. Todd, J. Coleman, S. Slocock, J. A. Meredith, E. L. Stroud, R. Porch, W. G. Flanagan, R. Page Bull, E. J. Mullett, J. Varney, A. Wheatley, W. H. Anderson, W. N. Wright, Percy J. Simpson, hon. sec. and treas., E. C. Howard, and Mr. L. Barnard, visitor.

After luncheon the Chairman first submitted the health of H.M. The King, which was enthusiastically honoured.

Mr. H. G. SIMPSON was sure the members would not like to rise from that festive board without doing honour to the toast of their hosts. Of late they had had a happy knack in that Society of combining business and pleasure, and that day they were specially favoured, being assembled on the invitation of three gentlemen well known in the Association, not only for their professional ability, but also for their hospitality. He proposed the health of their kind entertainers, and in doing so mentioned that Mr. Owen had telegraphed regretting that he could not join them.

Mr. Verney and Mr. Jagger briefly responded.

Mr. CHAIRMAN then said that perhaps it was not known to all the gentlemen present that their worthy President, Mr. H. G. Simpson, had thought fit to give up his work as a veterinary practitioner in this country and to accept an office in bacteriology under the Colonial Office. He was proceeding to Nairobi, in East Africa, starting next week, to establish a bacteriological laboratory there to carry out the study of the preventive treatment of cattle diseases, and he was sure they would all wish him a speedy and comfortable journey, and every success and prosperity. (Applause.) Mr. Henry Simpson had accepted a position which had hitherto been filled by medical men, and it was an important thing that veterinary officers were now passing into spheres of work hitherto occupied by the medical profession. (Hear, hear.) He hoped they would give Mr. Simpson a good send off, and that his health and prosperity would be greatly advanced by the step he was about to take. (Cheers.)

Mr. H. G. SIMPSON thanked the Chairman very much for his kind words, but was afraid that "the boot was on the other foot." He was quite unaware when he took the office of President of their Association that he would have to terminate it before his year had expired; but under the circumstances he felt sure they would forgive him. He was going a long way away, but with modern travelling it could be done very easily. He was sure they would appreciate any interesting specimens he might be able to send to the Association, and he was sure he should not be forgotten by old friends any more than he should forget them. Should any of them find their way to East Africa while he was out there they might be assured of a very hearty welcome. (Cheers).

The meeting was held in one of the committee rooms of the City buildings, by kind permission of the Mayor and Corporation. The President occupied the chair.

On the proposition of Mr. E. L. Stroud, seconded by Mr. J. F. Simpson, the minutes of the Aylesbury meeting were taken as read and adopted.

Letters and telegrams of apology for inability to attend were announced by the Hon. Secretary from Prof. W. Pritchard, Dr. J. McCall, and Messrs. James East, G. E. King, W. Wilson, P. W. Dayer Smith, Walter Harrison, F. W. Hanks, W. G. Wragg, H. G. Lepper, Pauer, W. G. Flanagan, jun., John Hatch, G. J. Emerton, J. S. Hurndall, G. P. Male, A. L. Butters, Wyllie, C. Wood Page, and S. Villar.

THE R.S.P.C.A.

The HON SEC. read a letter from Mr. George Thatcher, dated June 19th, with regard to Inspectors of the Royal Society for the Prevention of Cruelty to Animals giving evidence as expert witnesses on prosecutions instituted by them, and asking for information on the matter.

On the 20th July he got another printed circular from Mr. Thatcher asking that full details should be given of every such case for the guidance of the Committee,

on the understanding that there would be no publication of them except with the consent of the informant.

Registration Fee.

The President read Major Butler's resolution, remarking that it appealed to them all, and that he hoped they would be able to report favourably on it.

Mr. J. F. Simpson thought that agreement with the resolution as passed by the Central Society would in no way prejudice the position of this Association, or of any of its members, although it was a wide sort of recommendation. There could be no doubt that if a registration fee was payable by every member of the profession the Royal College would be in a much better financial position, but the whole thing was beset by difficulties and would require very careful consideration he thought before the Council of the College would venture to apply for an Act of Parliament to enable them to enforce a registration fee on members of the profession already qualified. There was the difficulty, and first of all they would like to ascertain whether it was really a popular movement. He gathered from the reports of different Associations that the suggestion met with approval, but he would point out that such approval was very easily given in a meeting and that the question hinges on when the application for those guineas or half-guineas was made. It was quite certain, in his opinion, that they could not enforce an annual registration fee without an Act of Parliament. He would personally like to see it brought about if he thought the majority of the profession were sufficiently interested in the progress of the profession to welcome the suggestion. He felt that before so important a step was taken as to apply straight away for an Act of Parliament the profession should be "circularised" by the Council of the College in order to ascertain the feeling of all the member. Should there be such an expression of loyalty towards the Royal College then he thought the Council should not hesitate to apply for an Act. It would be an absolute farce to appeal to the majority of the members of the profession to send in an annual registration fee voluntarily. Without entering further into the subject, he would move that the Association approve Major Butler's resolution.

Mr. E. L. Stroud seconded this, and it was carried unanimously.

New Members.

The following gentlemen were unanimously elected members of the Association :-- Major Cranford, F.R.C.V.S., A.V.C., Aldershot, nominated by Captain Wright; Mr. L. Barnard, M.R.C.V.S., of Chipping Norton, and Mr. R. Gillard, M.R.C.V.S., of Oxford, nominated by Mr. R. J. Verney.

Mr. Coleman read a report by himself and Mr. Villar, as delegates to the Congress of the Sanitary Institute, at Bristol.

On the motion of Mr. E. L. Stroud, seconded by Mr. Wheatley, it was unanimously resolved that the next meeting of the Association be held in London.

Specimens.

Capt. Wright showed two feet of a mare which was constantly lame, and was destroyed.

Another case was that of an Irish mare, which he honestly admitted that he did not understand, but Mr. Wheatley had kindly given his opininion. This mare, received on the 1st June from Ireland, on the 7th developed catarrh, which was cured on the 15th. On June 20th strangle abscesses were found under the jaw, which were nearly healed on the 13th July, when another abscess formed on the left side of the neck, which was poulticed, and burst. The mare was apparently doing well, but on the morning of the 26th July was found very lame in the off fore-leg, apparently in the shoulder, with an enlargement of the off arm and between legs. The white parts of the legs had black spots on them, which looked like fleas under the hair. These were afterwards found to be congealed blood spots. The animal was so lame in the shoulder that it was put into slings, and on the 27th minute drops of blood were noticed to be oozing from the skin all over the body. The visible mucous membranes were anæmic, and there was one echymoid spot in the off eye. She was given Tinct. ferri perchlor., Nux vomica, Sulphate of iron, Iodide of potassium, and turpentine and milk. She fed fairly well up to the 31st ult., on bran, crushed oats, etc., and on the 1st inst. was given milk and eggs. She was, however, getting gradually weaker the whole time, and on the morning of the 2nd inst. was apparently in very great distress in the slings, and slowly dying. She was taken out and a few hours afterwards dropped and died with hardly a struggle.

The post-mortem examination showed the carcase to be very anæmic, the capsule of the spleen particularly so. The liver was very yellow, and easily broken down. There was a groove in the right large lobe of the liver on the right side in which the right kidney lay, and to which it was firmly attached. There were numerous abscesses in the medullary and cortical portion of both kidneys. The condition of the lungs and heart they would see.

Mr. Verney showed an interesting specimen of partial fracture of the pelvis in a polo pony. The animal was put to stud, and bred a foal this year, and then died, being only five years old. The bone was bent right out. It was a small mare—about 14·2, and she bred a good foal after the accident, which was caused by her being knocked on the side and turning a complete somersault.

Mr. J. F. Simpson said the case brought to their notice by Capt. Wright was exceedingly interesting. He thought they might safely come to the conclusion that the mare was invaded by an organism of some kind. The condition of the heart was not uncommon—he did not say in the horse, but amongst human patients, where there were vegetative growths troubling the patients for the rest of their lives after scarlet fever and some other diseases. So, also, in cases of swine erysipelas, where vegetative growth on the valves of the heart existed to a great extent.

Vet.-Major Meredith called attention to a case of a horse which had a slight injury from a kick on the near tibia. The fracture took place on March 21st, and they kept it alive until July 7th. The tibia showed that a reparatory process had been set up. The animal was 11 years old. He also showed a spavin in the same animal, and specimens illustrating the result of external violence to the sessamoid bones of a horse's foot.

Capt. Wright remarked, with regard to the treatment of fractures, that he had a horse kicked on the tibia and put him in slings, although there was no suggestion of his having a broken leg. He was in the slings for about three weeks, and the wound healed perfectly, but about the end of three weeks the slings were wanted, and the animal was put between bails in the ordinary stall, and it stood there for five days, and then he was sent for and told that the horse had fallen down and broken his leg. The fracture was on the same leg and at the same place.

Mr. Varney showed some interesting specimens of glands from a case of chronic glanders, and also a portion of the larynx from the same animal showing glanderous ulcers.

Also showed case of intususception of the small intestine in a foal three months old.

Mr. J. F. Simpson proposed a very hearty vote of thanks to the gentlemen who had brought these specimens before them. He called to mind their meeting at Aylesbury last April when their Secretary rather chided

the members on their want of enthusiasm in not bringing more specimens to the meetings; but he must be hard to please if he was not satified with the exhibition they had had that day. (Hear, hear.)

Mr. P. J. SIMPSON remarked that as he had in the past "rated" members for not bringing forward specimens he would like to be allowed to second his father's motion. He was sure that such specimens, and the discussion on them, greatly added to the interest of those meeting. (Hear, hear.)

The resolution was passed by acclamation.

"THE UNSATISFACTORY SIDE OF THE EXAMINATION OF HORSES AS TO SOUNDNESS." Paper read by Mr. T. W. LEPPER at the Aylesbury meeting.—Resumed Discussion.

Mr. P. J. SIMPSON said first he must compliment Mr. Lepper highly on his admirable paper, which was on a subject which had, and no doubt would, cause a great deal of discussion. As to the examination of a horse's wind, Mr. Lepper had pointed out how easy it was when riding horses to detect certain sounds which one would not detect if listening on foot. He was of opinion, with Mr. Lepper, that if possible it was always better to ride the horse oneself; but two people might make mistakes, and yet both be right. (Laughter and hear.) He (the speaker) once galloped a polo pony himself, and also had it galloped past him, and he passed it as sound; and the next day the man who bought it said it was unsound in wind, and sent a veterinary certificate that it was an incipient whistler. Well, they were "at daggers drawn" over the matter; but ten days afterwards he (Mr. Percy Simpson) got a letter from the veterinary surgeon who examined the pony, in which he said that the animal made no noise. That, he thought, showed that even if they detected an animal making a noise they ought to be very careful that it was due to what was known as roaring from paralysis of the recurrent nerve, or they might easily "crab" a horse for his life time by saying he was a roarer. They ought to satisfy themselves that the cause of the roaring was permanent, and not temporary—due, perhaps, to a slight attack of laryngitis. To that end they might take the animal's temperature. As to grunting, one often found big, fat horses that grunted, and yet they could get no other indication of unsoundness of wind. With regard to ringbones, Mr. Lepper spoke about Shire animals as subject to ringbones. He (Mr. Simpson) had the pleasure of meeting Mr. Lepper's brother on a case to be decided as to whether an animal would pass the veterinary surgeon at a show. They were both sure that the animal had a side-bone, but the question put was whether the side-bone was one which could pass the veterinary surgeon at a show. It was one of those cases where the cartilage was three-parts ossified, but they could get a little flexibility at the top of it. They decided not to try the inspectors, for reasons he would not go into that day, but the reason given was, more particularly, because it was a gelding. Had it been a mare it might have passed, as Shire mares were passed through unless their lateral cartilages were completely ossified, but he thought the custom rather lax, as side-bone was certainly hereditary. He thought they ought to be more stringent in their examination of mares. In heavy animals he had noticed that they got enlarged buttresses of the pastern bone, one buttress being larger than the other, and that had probably been prominent from birth. They could not condemn an animal in that case, as it was merely a malformation, and not what they usually understood by the term ringbone. (Applause.)

Mr. PORCH concurred that they were all indebted to Mr. Lepper for bringing that important matter before the Association. No doubt they should examine the eye very carefully before passing an animal as sound. Mr. Lepper thought that they should pass "a small opacity on the cornea of one eye," but he thought that would depend very much on whether the horse was for hunting or polo. In such a case he (the speaker) should hesitate very much to pass an opacity unless it was very small, and much out of the way, as there would be a tendency to enlarge. There could be no difficulty in telling whether the opacity was caused by an attack of ophthalmia some time before, or whether it would recur.

With reference to grunting, he was rather of Mr. Lepper's opinion that they should reject a horse that grunted to the stick. In his opinion in nine cases out of ten they became roarers. In regard to roaring, he thought it possible for a horse to become a roarer in even a very few hours, and from some unexplained cause. In such cases when those horses got into condition again they again got sound in their wind, after a rest. He could not explain that, and it was not always a temporary affection. Then, sometimes, a horse would roar from temper, in carriages, if they pulled their heads back and they were high-couraged horses.

He thought ringbone one of the worst forms of unsoundness they could have in horses, especially for London work or omnibus work. That class of horse suffered more from low ringbones than from any other class of disease. As to splints, he thought they should consider them to be signs of unsoundness, though there were splints of varieties. There were many splints at the back of the metacarpal bone which were very difficult to find out, and many cases of obscure lameness were, be believed, due to that cause, the splints being directly under the tendons.

Vet.-Major MEREDITH also thanked Mr. Lepper for his paper. He thought that slight whistling was often due greatly to want of exercise. The general voice of the profession should if possible be obtained on the matter of soundness of wind in horses.

Mr. JAGGER remarked that as far as he could see, although the discussion had been interesting and was likely to do the members g od, the paper was not likely to be far-reaching in good results elsewhere. There could be no Court or Board which would bring people's opinions into the same channel. The most unfortunate position of the veterinary surgeon was that a man bought a horse subject to his opinion, and he had to send a formal certificate saying definitely whether he was sound or unsound. They had no prognosis to guide them, but had to use their own judgment. A most startling point was that brought forward by Mr. Hunting at the last meeting; but if they were all to carry it out they would want the reputation of Mr. Hunting to sustain them. He said that, no matter what the cause was, if horses made a noise he "crabbed" them all. That would not suit a small man in a small district. If they rejected a horse that made a small noise in its nostrils the probability was that it would be passed by other and more eminent men in the same district. "Once a splint always a splint, and once a roarer always a roarer" summarised his opinion, and he held that, although it was difficult in many cases to determine whether a horse was a roarer, the sound was distinct, and the animal should be rejected unless the noise was made in the nostrils.

Mr. T. W. LEPPER briefly replied, and expressed his thanks for the very kind way in which his imperfect paper had been received. The subject was a very important one to the profession, and the many disagreements there were did not do any credit to the profession and might cause some distrust in the public mind. The matter was very difficult to deal with collectively, but he thought younger practitioners erred too much on the side of safety, and possibly rejected horses for too trivial matters.

Mr. HUNTING, in proposing a vote of thanks to the President, said he was sure he was voicing the opinion

of every one present when he wished Mr. H. G. Simpson a happy journey and all prosperity. (App.)

The vote was passed with hearty acclammation

The PRESIDENT, in reply, said he hoped to continue his membership of that Association, and to meet them all again in three years. (Applause.)

PERCY J. SIMPSON, *Hon. Sec.*

EXAMINATION FOR INSPECTORS OF MEAT AND OTHER FOODS.

REGULATIONS.

A Candidate for the Examination, unless otherwise qualified, must hold a Certificate as Sanitary Inspector or Inspector of Nuisances, from the Royal Sanitary Institute, or some other recognised examining body.

He also must produce evidence of having had training in meat inspection for two months at a cattle market and slaughtering establishment recognised by the Institute, or some equivalent training approved by the Committee, and also of having studied the subjects of examination.

He is required to furnish the Board of Examiners with satisfactory testimonials of recent date as to age and personal character; these should, if possible, be from a clergyman, a medical man, or someone holding an official position.

Application for examination must be made on the proper form, and must be sent to the office of the Institute 14 days before the date of the examination at which the candidate wishes to present himself.

The fee payable is £3 3s. It must be paid to the Secretary: 10s. 6d. on making application, and the remainder at least one week before the day of examination.

The examination occupies a portion of two days. On the first day it is in writing and consists of two written papers, two hours being allowed for each. On the second day the examination is practical and *viva voce*.

A candidate on passing the examination will be granted a certificate of competency to discharge the duties of an Inspector of meat and other foods.

A certificate is not granted to any candidate under 21 years of age.

An unsuccessful candidate is allowed to present himself a second and a third time for examination within two years of his first application, on payment of half-fees; but in every case the candidate must make application on the prescribed form previous to presenting himself for examination.

In order to make the examinations more accessible to candidates, the Council have arranged for them to be held in various centres during the year.

SYLLABUS OF SUBJECTS.

A knowledge of the laws, by-laws, and regulations affecting the inspection and sale of meat and other articles of food, including their preparation and adulteration.

Signs of health and disease in animals destined for food, when alive and after slaughter.

Tuberculin and other tests.

The names and situations of the organs of the body in animals.

The distinctions between the parts and visceral organs of different domestic animals.

Size, weight, and form of the organs of ox, cow, horse, sheep, calf, pig.

Position of lymphatic glands.

The appearance and character of fresh meat, organs, fat, blood, fish, poultry, milk, fruit, vegetables, and other food, and the conditions rendering them, or preparations of them, fit or unfit for human consumption.

The hygiene of byres, lairs, cowsheds, and slaughter-houses, and all places where animals destined for the supply of food are kept.

The hygiene of markets, dairies, and other places where food is stored, prepared, or exposed for sale.

Practical methods of stalling and slaughtering animals, preserving and storing meat and other foods.

E. WHITE WALLIS, Secretary.

TRYPANOSOMIASIS IN ANNAM.

In the French territory of Indo-China serious ravages have been caused amongst animals by a form of trypanosomiasis which has generally been diagnosed as surra. Taking advantage of an outbreak of this disease amongst horses in the neigbourhood of Nhatrang, in Annam, Dr. J. J. Vassal has reinvestigated the subject, and has compared his results* with the records of somewhat similar outbreaks observed in Mauritius, the Phillippine Islands, Java, and India. He finds that the trypanosomes occur in the blood of the affected horses in very large numbers, particularly when the disease has fully developed; but in the terminal phases, just before death ensues, they may have entirely disappeared. With laboratory animals, including the dog, the parasite occurs, however, in large numbers during the terminal phase of the disease. Dr. Vassal has investigated the pathogenicity of the Nhatrang trypanosome for a great many species of animals and has observed certain differences in this respect from the surra of India, Java, and Mauritius. Bovines and buffaloes are less susceptible to the Nhatrang trypanosome, but for all other animals which have been investigated this parasite exhibits an exceptionally high virulence. Morphologically, it bears a close resemblance to the parasite of surra (*Trypanosoma evansi*). Its average length is from 28*u* to 30*u*, and not infrequently forms are met with in the horse, the ox, and the guinea-pig which have attained the length of from 30*u* to 35*u*. In the dog and in the buffalo exceptionally small forms occur. But neither morphological characteristics nor virulence tests can be regarded as sufficiently distinctive to establish the exact relationship of this parasite to the organism of surra and other varieties of trypanosomiasis. In order to elucidate this problem Dr. Vassal has sent his virus to the Pasteur Institute in Paris, where it has been investigated by MM. A. Laveran and F. Mesnil. These authorities agree with Dr. Vassal that the organism found in Nhatrang, both in its morphological characters and in the nature of the morbid process which it sets up, presents a close resemblance to surra. They have also observed the effects of inoculation with this virus upon animals previously immunised against surra acting on the principle that an animal which is immunised against one form of trypanomiasis would resist inoculation with a virus of identical nature, but would be susceptible to other forms of trypanosomiasis. The results of these experiments were somewhat discordant. A he-goat, immunised against surra, developed a fatal infection when inoculated with the Nhatang virus, but a she-goat, also vaccinated against surra, only contracted a very slight infection, which passed off in less than a month. The control, non-immunised goat developed a very severe infection, and died in less than three months. The Nhatrang virus was, therefore, very virulent for goats, and the failure of the vaccinated he-goat to resist the infection may have been due to the relatively low virulence of the surra of Mauritius against which this animal had been immunised. MM. Laveran and Mesnil, in view of these considerations, are inclined to regard the trypanosomiasis of Nhatrang as a special variety of surra, and not as a distinct morbid entity. In confirmation of this view they find that the specific reactions of the serum of animals inoculated with this virus show a close relationship with surra, but no indication of any relationship to the nagana trypanosome.—*B.M.J.*

* Annales de l'Institut Pasteur, April 25.

DISEASES OF ANIMALS ACTS 1894 TO 1903. SUMMARY OF RETURNS.

Period.		Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Rabies. Cases Confirmed.		Sheep Scab.	Swine Fever.	
		Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Dogs.	Other	Out-breaks	Out-breaks.	Slaughtered *
GT. BRITAIN. Week ended Aug. 11		18	21			16	31			1	13	128
Corresponding week in	1905 ..	17	20			31	48			1	24	100
	1904 ..	13	17			32	46			3	26	83
	1903 ..	16	26			48	72			3	41	144
Total for 32 weeks, 1906		588	868			690	1298			298	741	4100
Corresponding period in	1905 ..	625	863			789	1360			651	560	2572
	1904 ..	623	959			962	1714			1064	941	4421
	1903 ..	502	776			915	1496			1168	1055	5134

Board of Agriculture and Fisheries, Aug. 14. 1906.

IRELAND. Week ended Aug. 4		..	..	..	..	1	1	..	..	2	2	39
Corresponding Week in	1905 ..	..	..	..	..	..	1	..	..	2	4	62
	1904 ..	..	..	..	..	..	..	..	..	..	9	32
	1903 ..	..	..	..	..	..	..	..	..	..	9	117
Total for 31 weeks, 1906		3	7	..	..	5	12	..	..	152	63	753
Corresponding period in	1905 ..	2	2	..	..	12	34	..	..	227	97	907
	1904 ..	2	2	..	..	8	24	..	..	368	183	2462
	1903 ..	2	3	..	..	1	2	2	..	395	182	2060

Epizootic Lymphangitis: Week ending Jan. 27, 1906, 1 case.

Department of Agriculture and Technical Instruction for Ireland, (Castle Street), Dublin, Aug. 9, 1906.

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection.

Penalties for Cruelty in West End.

Somewhat singular charges of cruelty to horses were heard at Marlborough Street Police Court on Saturday, 11th inst., by Mr. Kennedy. Robert Gray, coachman to Lady Naylor-Leyland, of 60 Knightsbridge, was summoned for cruelty to a gelding and a mare; Frederick Madigan, groom, was similarly summoned; and Lady Naylor-Leyland was summoned for causing the animals to be cruelly treated.

Mr. P. M. Burton prosecuted for the R.S.P.C.A., and Mr. Bodkin was for the defence. Lady Naylor-Leyland did not appear in court.

William Green, one of the Society's inspectors, said that on July 24th, at Albert Gate, he saw Gray driving a pair of horses attached to a victoria. They were trotting, but both were exceedingly lame in the fore legs, and were leaning as far back from the pole as they could, apparently trying to get on to their heels. That was a symptom of laminitis.

As the carriage returned home, witness said to the coachman, "Your horses are very lame." The owner was in the victoria. He followed her into the house, and from what she told him he went to the stable and said, "I have seen Lady Naylor-Leyland, and she says the groom is responsible for the horses working in this state." Both defendants were there, and witness added, "Her ladyship tells me she told you in the park that the horses were lame." Madigan replied, "Her ladyship asked me if they were lame, and I told her they were all right." Witness then examined the animals, and found the mare suffering from laminitis. Its fore feet were exceedingly hot, and it also had "ringbone." The horse was lame in the fore feet from laminitis. They walked with great difficulty, and tried to use their heels.

Witness told Madigan that her ladyship put some of the responsibility on him, and he replied, "I told her ladyship at the beginning of the season they were only fit for an hour's work a day, and if she worked them longer it would be an act of cruelty."

Cross-examined: Both animals were in very good condition with the exception of their feet.

The groom said the animals were going to Wales to be pensioned off.

Mr. Alexander Piesse and Mr. Herbert King, veterinary surgeons, bore out the evidence as to the diseased condition of the animals' feet, and the last-named gentleman, in cross-examination, said he did not think the animals should be worked at all.

The defendant Gray, on oath, said the horses only went out for an hour or an hour and a half about three a week. The only complaint he knew of that one of the animals suffered from was "seedy toe." He did not always believe in "vets."

Madigan stated that when he told Lady Naylor-Leyland the inspector said the horse must not be worked on hard roads, she agreed, and said they should not be worked again.

Mr. William Kirk, veterinary surgeon, called for the defence, said he had not seen the horses, but was well acquainted with laminitis, which was very common in London. Thousands of horses with the complaint were worked when properly shod and treated.

Mr. Kennedy came to the conclusion that the horses were unfit and had been cruelly worked. Gray was responsible, and would have to pay 40s. fine and 23s. costs for each horse, an inclusive penalty of £6 6s.

The summonses against Lady Naylor-Leyland and Madigan were withdrawn.—*Tribune.*

A Pony Killed by Bees.

A rather alarming incident has occurred at Colton Hall, near Rugeley, resulting in the death of a valuable pony and the serious illness of a young lady. Miss Bloer, who is keenly interested in bee-keeping, was conveying a hive containing bees from her father's residence, Colton Hall, to Rugeley, and in crossing a field near to the Bull and Spectacles, close to home, the wheel got into a rut and upset the hive. The bees, immediately excited, began to fly out, and Miss Bloer, with heroic courage, jumped out of the trap and unfastened the harness as well as she could. Meanwhile, the bees were swarming over the animal, and the lady herself was severely stung on the hands, neck, and face, so much so that she had to leave the last trace and run away. The poor beast made frantic efforts to release itself, and eventually succeeded, and, maddened to a degree, rushed across the field. Its sagacity was demonstrated by the fact that it jumped into a pit to rid itself of the pests. On the arrival of the veterinary surgeon the pony was found to be frantic with pain. There was hardly room to put the point of the finger on a spot which was not stung. Ammoniated water was brought, the animal secured and bathed, but it was in such a state that it went mad, and finally succumbed from shock and stings. Miss Bloer is seriously ill, but it is expected that she will be better in the course of a few days,—*Sheffield Daily Telegraph.*

An English V.S. Appreciated.

Our Paris Correspondent writes :—"The Société Centrale de Médecine Vétérinaire of France has done Major H. T. Pease, Principal of the Punjab Veterinary College, Lahore, the honour of electing him a 'Correspondant Etranger' in recognition of 'the great value of his scientific work.' The Society is a very exclusive one, and only men in the first rank of Veterinary Science are elected as Corresponding members (Foreign); the only other Englishman being Sir John M'Fadyean."

We have here a notable illustration of the saying that no prophet has honour in his own country. In Europe and in the United States of America the reputation of Major Pease, as an original investigator whose bold researches into abstruse problems of animal pathology have illumined some of the dark places of a backward science, has long been established. In India, the scene of his long labours, most people would ask blankly—Who is Major Pease? The Government of India, too, apparently have yet to "discover" the most brilliant of their veterinary experts.—*Civil and Military Gazette.*

Australian.

The Australian settler is notorious for brevity of speech as the following will illustrate :—

1st A.S. : "Morning."
2nd A.S. : "Morning."
1st. A.S. : "What did you give your horse when he had the gripes?"
2nd A.S. : "Kerosene."
1st A.S. : "Morning."
2nd A.S. : "Morning."

Next day—

1st A.S. : "Morning."
2nd A.S. : "Morning."
1st A.S. : "That horse of mine died."
2nd A.S. : "So did mine."
1st A.S. : "Morning."
2nd A.S. : "Morning."

ARMY VETERINARY SERVICE.

Extract from *London Gazette.*

War Office, Pall Mall, August 10.

Army Veterinary School.—Capt. A. G. Todd, Army Veterinary Corps, to be Assistant Professor *vice* Capt. E. E. Martin, F.R.C.V.S., who has vacated that appointment.

Volunteer Corps.—1st Warwickshire.—Vet.-Lieut. F. J. Taylor to be Vet.-Captain.

At their séance of the 22nd June, 1906, the Société Centrale de Médecine Vétérinaire elected Major H. T. Pease, Principal of the Punjab Veterinary College, Lahore, Correspondant Etranger of the Society.

Capt. W. M. Millar, A.V.C., has been noted for an Advanced Veterinary Post Graduate Course of Instruction shortly.

Officers desirous of preventing delay in the landing in Ireland of privately owned horses, owing to owners not complying with the provisions contained in the Importation of Horses, Asses, and Mules (Ireland) Bill of 1906, can be supplied with a form of declaration and veterinary certificate on application to the Principal Veterinary Officer, Headquarters, Aldershot.

OBITUARY

Mr. Thomas Farquharson Hay, V.S., Ellon, Aberdeenshire, died on Wednesday in his eighty-seventh year. A native of the Aboyne district, he went to Ellon about the middle of the nineteenth century, and continued in practice there for fifty years. He will long be remembered for the active part he took, along with Mr. Barclay, of Glenbuchat, in 1865, in the measures that led to the extermination of the disastrous cattle plague in the county. Mr. Hay, who was highly esteemed in the community, was predeceased by Mrs. Hay several years ago, and is survived by a grown-up family.—*Scottish Farmer.*

CORRESPONDENCE.

THE VARIOUS METHODS OF KILLING HORSES.

Sir,

I have been told that the mere injection of air into the jugular vein of the horse by means of a hypodermic syringe will kill it instantaneously, but I don't believe this story, as I have on several occasions injected air into the jugular vein by a large serum syringe and in every instance failed.

I have seen horses killed by the pole-axe, by shooting, by chloroform, by the intra-venous injection of chloral, pithing with or without the preliminary intra-venous injection of chloral, by division of the carotids or the posterior aorta, and by prussic acid or cyanide of potassium, and have come to the conclusion that pithing, if skilfully done, is the quickest and most humane way of putting a horse out of his misery.

"Stupid."

ON THE IMPORTANCE OF THE VETERINARY PROFESSION.

Sir,

"The just price of thy Life to thee—why God's entire Creation to thyself, the whole Universe of Space, the whole Eternity of Time, and what they hold: that is the price which would content thee; that, and if thou wilt be candid, nothing short of that!" I do not quote further, for I doubt whether many veterinary surgeons are likely to appreciate the moral teaching of Thomas Carlyle; but I think the above sentence is worth transcribing, as illustrative of the present mental outlook of many of our "progressive" members. For it seems to me that the veterinary profes-

sion is in danger of becoming permeated with ideas concerning its own importance and deserts, altogether disproportionate to the reality.

We are, perhaps, the smallest of all legally recognised professions, for there cannot be 3,000 of us in active practice throughout the British Isles. It is only within the last fifteen years that we have been required to pass matriculation examinations sufficiently stringent to guarantee us as men of good general education. Post-graduate courses are a far more recent innovation, while the "strengthening and modernising" the equipment of our schools, in order to fit them for affiliation to Universities, is not yet complete. Surely all this indicates a profession which, at present, is far from what it should be, and has still to make great advances before it is fully equipped to take its proper position in the community!

Even when the veterinary profession has reached its zenith of scientific proficiency and public usefulness, I venture to say that its importance—relatively to that of other professions—will be comparatively small. Of the numerous and very different duties grouped under the general heading of "public health work" only a few require veterinary knowledge.

And as far as private practice is concerned, can anyone claim that a veterinarian, whose chief mission is to restore sick or lame horses to fitness for work—or even the more aristocratic "Canine and Feline Specialist"—is half as important to the community as the medical man, who is daily entrusted with the preservation of human life?

But recent proceedings at some of our veterinary societies suggest that we really regard ourselves as quite the most important body of men in the State, and entitled, therefore, to altogether unexampled privileges. The veterinary profession is beginning to be candid, and unfortunately—like the figurative individual addressed by Carlyle—seems inclined to declare that nothing will content it, short of—what it cannot get. The storm in a teacup which was raised over the Cardiff appointment illustrates this to some extent. The latest suggestion for a new Act of Parliament does so much more completely. Not content with majestically rebuking (by means of resolutions passed at its tiny societies) the proceedings of a corporation, the veterinary profession (again using the same highly influential means) is beginning to formulate the modest request that *Parliament* should bestow upon it an absolute legal monopoly which the far more powerful and important *medical* profession has never been able to obtain. Could anything show more clearly how grievously inflated with an undue sense of its own merits the veterinary profession is becoming?

But it is a great pity that it should be so. We really are a useful little body if we could be content to quietly improve our own knowledge, do our own work, and not make ourselves ridiculous by exaggerating its value. We shall rise to a higher position yet than we occupy now, but it will not be by clamouring for privileges that are unattainable.

For to *over*-estimate our importance so palpably as we seem in danger of doing at present, is the surest way to make the rest of the world *under*-estimate it.—Yours truly,

"OBSERVER."

DISEASE.

Sir,

Your extract from Prof. Ray Lankester's Presidential Address at the meeting of the British Association re-awakens a doubt I have often felt, as to whether the medical and veterinary professions after all really deserve the credit which they claim in the elucidation of disease. Even more credit I think is due to men outside the medical world—to biologists and chemists.

Such names as Pasteur and Metchnikoff will occur to everyone, and we all recognise *now* our debt of gratitude to these two and many others. But these two deserve particular notice in one respect. Each of them opened up a new field in pathology. Each, without medical training, recognised the bearing of his work upon medical science, and offered it to the medical world. And, finally, each of them found it extremely difficult—to say the least of it—to convince either medical men or veterinary surgeons that his work was of the slightest value.

Prof. Lankester drew attention to the prejudice and scepticism with which Metchnikoff's views were once met. Pasteur, in his day, had exactly the same battle to fight, and like the great Russian lived to see his work accepted. The two together probably did *at least* as much for medical science in its widest aspect as any other two men that could be named, living or dead, and neither were medical men, and both alike were laughed at for years by trained students of disease. It is not exactly a pleasant truth, but I think it *is* a truth, that half the medical advances that have been made have been due, in the first place, to other than medical men, and that medical men too often have done their best to retard advances.—Yours faithfully,

M.R.C.V.S.

THE PHISALIX ANTI-DISTEMPER VACCINE.

Sir,

During my short stay in this country I am desirous of learning of the experiences and opinions of those who have tried the Phisalix vaccine in England. My late father, who was at first an unbeliever, ultimately became convinced of its utility after trying it on fifty dogs, not one of which afterwards developed distemper.

MAURICE MALLET.
Fourth Year Student, Alfort Vet. School.

CHINOSOL—A QUERY.

Sir,

In the report which appeared recently of the proceedings of the Midland Counties V.M.S., I see that the President Mr. W. W. Grasby, advocates as treatment for open joints "Take a tablet of Chinosol and push it in pure." This recalls to my mind a question which has occurred to me more than once, viz., does Chinosol coagulate albumen?

The orthodox answer to the query would, I believe, be in the negative. But most of us recognise that the orthodox view of the action of a drug is not always a correct one, and I am not quite sure that it is correct in this case.

I have never used Chinosol pure, as Mr. Grasby does, and though I have employed it as a dry dressing, mixed with boracic acid, my experience in that direction has not been large. But during the last seven or eight years I have used the drug as a *lotion*, in strengths varying from 1 to 600 to 1 to 3000, very frequently indeed, both for horses and the smaller animals treated in a town practice.

And from time to time, when examining wounds I was treating in this manner, I have been inclined to doubt whether chinosol (especially when used strong) does really possess the property generally attributed to it, of *not* coagulating albumen.

Mr. Grasby's opinion seems to support that doubt of mine, and it would interest me if he would supply us with details of a case or two, and state whether he uses the Chinosol tablet with the object of coagulating albumen, as well as those of the destruction of bacteria and the stimulation of tissue. I should also like to know whether the induction of the tablet causes much local swelling. I should rather expect it to do so, though as I have already said, I have no experience of chinosol when applied pure.

This drug has had a great reputation in veterinary surgery for some years now, a reputation which is, I think, fully deserved. Most of us, as clinicians, are acquainted with its excellent effects in everyday practice, but I fancy we have still something to learn regarding the precise nature of its therapeutic action.—Yours truly,

"QUERIST."

MANUALE PER IL VETERINARIO, by C. ROUX E V. LARI. 16mo. XX; 356 pp. and 64 Publrs. advts., 16 Illustrations, Cloth, r/c. L3.50. Ulrico Hoepli, Galleria de Christoforis, Milan.

COMMUNICATIONS AND PAPERS RECEIVED—Messrs. H. Taylor, S. E. Robson, D. Fairbank, W. R. Davis. "Observer," "Moralist," M.R.C.V.S.

The Evening Star (Ipswich), *The Boston Guardian*.